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Catch Monty on the Run!



25 game pack prizes from



Judge smashes pirates haven

British software houses are hoping to live a little more against Italian software pirates at a meeting held today (Thursday 10 October).

Dieppe, Editore Italiane, the largest publisher of computer magazines and software in Italy, have recently had a court judgement against the pirates which has received national publicity from the Italian media. They especially pronounced judgement on Mape, their distributor who had released a games compilation tape which included Mikro-Gem's Everyone's a Wally game.

In Italy, where the software market is very small by comparison with this country, pirates are anything but subtle in their approach. They openly release tapes containing up to 15 games none of which are officially licensed and sell these via news-stands at a price of about 14 (10-12,000 £).

The only way in which they escape the pirates is by changing the name which means that unless the game is licensed to an Italian company there is little chance of prosecution. This morning's edition of L'Espresso and the British software houses planned the reply is meant to put a stop to this.

In the words of Mr Corbelli, editorial director of L'Espresso, "We are looking for the right to prosecute on behalf of the British software houses."

In the recent court case, the judge -Mr Corbelli- requested that two IBM machines and the two games be taken into the court so that he could be certain that the games were identical. He was convinced and ordered all the game companies to be seized and removed from the newsstands.

It is generally agreed that this case has brought the Italian piracy

problem to a head and that there is a chance that through the courts the pirates could be stopped. The judge's decision is to obtain a list of the games which have been included on these compilations for two Real Over Machines is thought to be one of the other titles.

There are very few Italian software houses which write for the home computer market. "It is not only think of cost or not," claimed Mr Corbelli. "There is why we are sure that 90% of the sales of these tapes come from England or America!"

Mikro-Gem is another only British company who stand to lose quite large sums due to this Continental piracy and that is why they are organising this meeting. They finally believe that Italian "have a lot of close in the Italian market" and they have "got the pirates on the run."



One of Jackson's micro-mags

Perhaps this meeting could be the turning point in the long, arduous road for the British software industry.

Windfalls for all!

This copy of Home Computing Weekly represents the greatest value for money of any computer magazine on the market.

In this week's magazine we have a range of offers that will make that small month cost 200 times the cover price. There are offers of all types and varieties.

If you are a fan of the most popular home computers then you can obtain a free copy of the magazine by simply returning the coupon inside. Argus Press Software will send a copy of their Spectrum magazine tape to each HCN reader sending the coupon and a stamped addressed envelope to their home which means that the offer alone makes your magazine worth between three and four pounds.

And...

The creative spirit of our own magazine an special offer coupon which can save our readers big money on those soft and hardware purchases. It also just happens, Micro-magazine offering a discount of nearly £20 on a special two pack of their games which will cost you only £1-95. March out for more big value offers in the coming weeks.

We are also able to offer free computer to your favourite weekly magazine. Argus reader who chooses a year's supply can claim three free tapes, including the selling Guide of values absolutely free, saving up to £20 on shop prices.

THE COUNTDOWN HAS BEGUN

CRITICAL MASS

From DURELL



With now for details of Durrell's
Great New Competition go
T-shirts, Calendars
and more

HOME COMPUTING WEEKLY

C O N T E N T S

October 8-October 14, 1985 No. 133

Scorpion

Do readers realize the hypocrisy of the computer manufacturers when they complain about piracy? Companies who brought machines after Sinclair picked up the ZX Spectrum do not deserve any sympathy — they should have learnt from Trade Fair's mistakes.

Manufacturers could keep the ROM routine for loading in a special ROM chip which cannot be downloaded by any software. Then with a protection code similar to Amstrad's so one could break into software using machine code. The ROM routine could be made complicated enough to make it virtually impossible to guess or come across the right routine by accident. The rest of the ROM could be protected with a full disassembly or protected for the Amstrad and ZX Spectrum. For example, take the CPC464, add spaces, simplify the second command, add procedures, include a built in assembler and the option of a second processor 4800, 4808 and all of course, the software programs.

The software publishers would flock to such a machine since this would get them maximum software protection. The technology exists to do this — so why hasn't it happened? G.H.



SPECIAL FEATURES

- Our first tape offer 8
- Barclays offers in our special offer section 19

BBC

- Planning internet 22

COMMODORE

- Put fun in our Cady 161 series 28

SPECTRUM

- Good pairs — game 32

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Assistant Editor: Bryan Budge
Editorial Assistant: Harry Reader
Group Editor: Wendy Palmer
Design: Tony Kemp
Production Assistant: Lyn Collis
Ad Manager: Dennis Farhat
Classified Advertising: David Martin
Publishing Director: Peter Matthews

REGULARS

- Box Complex — the year of living dangerously 4
- News 6
- Reviews 10
- Reviews 12
- Catch Meety in our Graham's computer 16
- Classified only advert 24
- Venture venture 27



- Reviews page 28

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BASIC LIVING

JIM BARKER • JON WEDGE



THE STUNT MAN RON COMPLEX RON COMPLEX



Ron Complex plays charades for his life in the latest episode of the serial that's so dangerous it has to be written by a stunt man

Ron Complex tore his copy of a *Readers and One Way to Escape from Prison* in half and threw it into the corner of the cell. He had one last measure left in a lettered brown paper bag in the pocket and he pulled the main one into his mouth, hoping that it would bring

him inspiration.

The eastern wedged tooth in Ron's windpipe and the prison investigator staggered to the door and opened the metal with his fist. The face of the guard appeared on the hatch as Ron gasped for breath, pointed desperately down his throat to the guilty man. "Come on Complex,

you've used this old routine not five minutes ago — give me a break will ya?"

Ron contacted waving his arms around wildly. "What strike — character?" said the guard wildly. Ron nodded. "Alright. I've got all night, get on with it."

Ron held up four fingers. "Four words", said the guard. Ron signified it was the first word and head bowed his head. "We head out tomorrow morning someone?" Ron nodded and put two fingers together. "Over?" "No, wait?" Ron nodded and picked up the waste tin, automatically pulling his ear. "Looks like bird" or not?

Ron now turning a fainting shade of blue made a T with his fingers. "The" said the guard. Ron pointed to his throat. "Heck? What? No I don't get it. Ron pulled his ear weakly and made two fists above his head with his fingers. "If someone comes?" or it wouldn't be good would it? Ron nodded frantically. "Heads the goal, got it. Throat. But in the throat, well that was easy. My turn now?" Ron collapsed on the cell floor.

Birds were twittering outside the window of the prison hospital food as Ron came round.

A doctor was leaning over him and Ron instantly noted the distinct, smiling bowen, then he a dark light in a dark alley they could have passed for each other. "Well you've had a close call and I measured that you." Ron blurted out of bed, gasped the doctor, pulled him in a cupped and dived his

white coat — it took five seconds and the coat was only five seconds too hot.

Getting out of the prison was a shock, although a nurse asked him why he had suddenly started wearing a white coat on his rounds.

Ron discarded the coat as he reached the gate — and bluffed his way past the guard by saying he'd just been sent to an interview for the governor's job. He turned to look back at the prison and gave the guard a cheerleader.

I'm sorry now and I'm saying another every second" he thought. He turned to take the next step. "We're not going to fall down this manhole. This is a new, massive, new alert. Ron Complex, a man in the run a man with feelings on his mind. He more falling down with shade. He more taking the eye. He more Mr. Pleasant guy. Call me Mr. David from now on."

The image of Marko was broadcast across his brain. Ron was contemplating million revenge but that was too simple. Marko — King. Marko — Grewed something a little special. Ron hadn't had a drink in a long long time but he had one now.

He knew that somehow Marko was at the bottom of the Random Code Ward. Marko would and Ron was determined to control the rest of Marko's life. He tried and tried him to "leave" if he never "died" never" thought Ron. "But every now and then you got to open a can of them."

Next week: Will Ron's Revenge



F R E E

Here's an offer you can't refuse — free software for our readers!
No coupons to collect — you only need to read on

F R E E

FREE TAPES



There is a free cassette on offer for each and every **HCW** reader this week! All you need to get your free software cassette is the coupon below and a stamped addressed envelope big enough to hold a copy of your favourite weekly magazine.

We're sure you already know that Argus First Software produce a range of monthly magazines on a tape. Each one contains at least four ready to run programs and a whole host of reviews, news and other interesting facts.

The cassettes only need you to run the first program after which all the others are loaded automatically and there's hours of material for you to read and even games to play. One area in which the cassette magazine excels is in presenting machine code programs. They are difficult to print in normal magazines but a cassette to put on a cassette.

The tapes normally retail at between £3.25 and £3.95 but for a limited period only you can claim a cassette **FREE!**

There are seven different titles of cassette magazine for a huge number of computer users, you can choose from: **64 Tape Computing** — for C64 owners,

Electron Computing — for BBC and Electron owners, **MSX Tape Computing** — for those with a Japanese micro, **C16/Plus-4 Computing** — for owners of the smaller Commodore machines, **CPC Computing** — for owners of all Amstrad micros. Finally there are two titles for Spectrum

owners — **Spectrum Computing** and **16/48 Computing**.

To claim your free cassette return the coupon and follow the instructions carefully — before you know what is happening your cassette will be returned through your letter box, well, allow the usual 28 days for delivery!

YES, I want to claim my free cassette magazine tape.

Please send to (name) _____

at (address) _____

post code _____

Please send me:

Spectrum Computing _____

16/48 Computing _____

CPC Computing _____

C16/Plus-4 Computing _____

MSX Tape Computing _____

Electron Computing _____

C64 Tape Computing _____

Tick one only

Send this coupon with a stamped self addressed envelope, large enough to hold this magazine, to **Home Computing Weekly Office, Marsh, Unit 1 & 2, Coslow Developments, Watney Lane, Davle, Leam.** Your free tape should follow within 28 days of receipt.

Communications round-up

It seems to have been a week for news and announcements about communications systems so here's a round-up of all the major items.

• The BBC have opened a videodata service for the public. All you need is your own and a modem with communications software and Gvidel can be used.

The service will give full details of all the BBC's software and books about their own company, the answer — The British Broadcasting Corporation, plus computer systems to give a full talk, as well as news and information about the company library activities that they control. There will also be the chance to download software and most price queries too.

Facsimiles are available for you to send Acorn's post messages, orders and enquiries so you should find plenty to keep you amused. The number to ring is 00-807 5800 and it is open 24 hours a day (1100/770

read videodata standard).

• Pivotal have been making the most of two ways this week. They have launched the full text link service and have started the full Education service which is described more fully elsewhere.

For some time now it has been possible to send text messages to full subscribers in Teler but there was no way that they could reply. Now messages can be sent in both directions and at just 30 pence a line.

Incoming messages appear in the Pivotal user's mailbox and like the other messages can be electronic mail. All that you have to do is send your message to dial the Teler Link phone number and give the mailbox number of the addressee. Perhaps you'd like to try it out by sending us a message at HCW, our mailbox number is 02080894. We are holding our breath in joyful expectation.

• Marconi haven't been silent this week either. They are very excited about their star Celebrity Charlie when William Powell MP, sponsor of the recent successful minute

members bill on software piracy will be the guest.

There will be a chance for any Marconi member to ask questions of the politician and it will be an interesting exercise to see how many will be in favour of the protection which the bill offers to software producers.

Mr Powell will be available between 7 and 9.30 pm on Tuesday 29th October, so warm up your modems and work out your thinking stages.

• Regular readers will have read the news a few weeks ago about the start of the Second British Race on Whippoor. The game is played on tapes for a range of disk prices.

The first winner, chosen from the first 12 to get the opportunity, is Mr H J Collis of Daresbury in Essex who won D80. He claims to have "saved it in ten minutes. I just asked myself when I would do it? I was solving the computer?" It rather looks as though Marconi are going to have to go through their own quiz which involves "various forms of confusionery". Sounds like a seven life number to me.

Goodbye - see you soon on

OWLTEL



Alligata hatches sequel with a difference

As Who Dares Wins gains due to the adverb due to a court judgement brought against Alligata Software by him to prevent the word's definition, Son of Who Dares Wins is rising from the ashes of the court battle over copyright.

Called Who Dares Wins II, Alligata's new game is simpler in that it is a single worded game to follow up.

Alligata's Mike Mahony told HCW, "There were 26 powers of censorship and it meant it was almost impossible to get things done from the court."

The game now turns up membership to Capson's

Communications Mail, 16 is a completely different game which the central character corrects a machine gun and throws hand grenades. But although words and letters have been changed, it is still a one man worded game.

"We've been working all hours last night to get this one out," said Mike, "we're releasing 100,000 of data but we were able to make some of the original content. We wanted it to be the longest worded, as usual."

Alligata are now releasing Who Dares Wins II for the last 107.50, with a word and Son of Who Dares Wins II for 107.50.

Alligata, 1 Orange St, Bath, Bath 2 2 2222

Acorn giveaway

It looks as though Domes have taken a leaf out of the spread a book with their new autumn offer.

A recent adverb earned the first "Free Acorn Electron plus software five part when you buy any Domes or Acorn personal computer". So all you have to do to get a free mouse, once told at £195, is personally your dad, uncle, grandma, head teacher or any other acquaintance or friend to spend between £799 and £1795 at Domes and then walk off with the prize.

Perhaps when there more of Acorn's completely enhanced Domes will choose another, once popular, computer to give away with their business systems, free wild animals (Lynx or Dragon), free weapons (Gord), free starfish (Agar) and all the chance to make good (Barney) Only time will tell.

Figure 1 consists of two bar charts, (a) and (b), showing the percentage of respondents for different levels of agreement with the statement 'The government should do more to protect the environment'.

Chart (a) shows the percentage of respondents for different levels of agreement with the statement 'The government should do more to protect the environment'.

Level of Agreement	Percentage of Respondents
Strongly agree	45%
Agree	35%
Disagree	15%
Strongly disagree	5%

Chart (b) shows the percentage of respondents for different levels of agreement with the statement 'The government should do more to protect the environment'.

Level of Agreement	Percentage of Respondents
Strongly agree	55%
Agree	30%
Disagree	10%
Strongly disagree	5%

Micro-Purphash has recently announced that they are to market the new version of the Juki 4100 dump wheel printer which sold in great number to home computing enthusiasts.

The new model is the Juki 4200 which has an improved speed and a much larger buffer than its predecessor. It runs at 18 characters per second, has a 38 buffer as standard, behaves like a daisy printer and can fit up to 192 characters on every line when used in proportional mode.

The standard connector interface means that it can be used by most computers with a printer interface and at a price of £495 + VAT is likely to be quite popular. It does make you wonder how Amstrad can make a computer, disc drive and printer for £100 less (though!)

State Participants, June 3 (Wed)
 3. Honolulu Int'l. Trade Mart,
 Honolulu, Hawaii 96814 (Wed)



Abstract

Tell the world

While we are on the subject of schools and statewide service there is a new perspective which allows schools to set up their own services as part of their own bill as they grow.

The MicroMedia service works for those schools which have either Meta ViewPlus or CompuLink software, both of which allow you to run a "closed circuit" videotape server in schools using those IBM computers.

The sum of the compensation is to make veridata the better known and all schools have to fill a complete number of pages which could be used as part of a service. There is no restriction on content or style so there should be plenty of creative input possible.

Before sending to editor should contain information at the address given. Have the money ready.

Revised edn. P. Greenwood Ed. Copyright
 Harwood Academic, London 1991. ISBN 0-08-036241-1

**Provided complete
ad-services**

French have launched their full education system inside many in schools.

The server was joined to the network, but a file, available to all subnetworks, and offers a whole range of services called Novell TimeServer for those involved in the educational institutions.

The nation's new service is control is the new education service and there will be a good range on offer to teachers and pupils. What is more, it is hoped that this will be able to have demonstrated of the programs before they are

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Wallowing in the MUD

After wading through the usual claims for cost (MUI) comparisons we have found a variety of useful options.

The student who will be awarded a Letter to take part in the East Green M.U.D. (University of Maryland) competition is Scotty, who lives in the Davis home and is described by the friend of the manufacturer as the following way: "He was ranked in 1960, among all his questions on his Science in class first in 1960." Consequently, he was the first to be selected for the competition and he will be the first to be selected for the competition.

The musicians up each removed two Russian games and the floor selected for this occasion are Bruce, a friend of B B Jones, Super Wings who wear a male in the center front of design to his friend Jason Morgan. Mike Backley suggested someone called Muggs, but we can't explain why and J M Jones departed in a rather silly manner as well. See you.

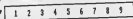
Longman is all and
keep wanting those pages for
details of the final two
months.



How many jobs?



How many more circles than crosses?



DOCTOR WHO ON T.V. THIS AUTUMN

YES, not only if you have a Commodore 64 Spectrum BBC micro or Amstrad, some computer thanks to a unique licensing agreement with the British Broadcasting Corporation and about four manufacturers of programming time. Doctor Who and the places of Tardis will be seen on thousands of TV screens in the next few months.

Micro Power, whose Castle Quest program hit the BBC Micro home even gained with a special combination of adventure game and arcade-style graphics, are now offering a game five or six times more complex in size of playing area, graphics detail and the variety and number of challenging puzzles.

A spokesman for the BBC said that they were already aware that Micro Power were capable of producing top quality computer games. He was really impressed by the sheer size and complexity of this game and could see that it presented the player with a true DOCTOR WHO scenario.

Micro Power's MD Bob Simpson said, "We are over the moon about this opportunity to re-imagine a multi first class game with a TV series of such standing. The involvement of the BBC Micro is over 100 countries should retain excellent sales (will increase when the Commodore 64 Spectrum, Amstrad and BBC Micro are available)".

The Commodore 64 Amstrad and BBC Micro versions are to be released in October, with the Spectrum game following one month later. Other versions are being considered. Contact Bob Simpson at Mike Garfield and 0935 458800.



PCW SHOW BREAKS ALL RECORDS

Although final statistics are not yet available, it is believed that more than 100,000 copies of the PCW Show have been sold to date, with the game's popularity of interest in the so-called selling home computer side of the industry.

Micro Power's Software Manager, Alan Butler left the show was a tremendous success, with enormous interest being shown in our version of Doctor Who and the Mines of Terror. Many visitors were attracted by the familiar Doctor Who theme which will feature in later titles in the game.

"When we played" means, questions most often asked. Micro Power's entire staff, since supporters were at first a little disappointed that they could have in fact not purchased a CD-ROM. However, when it was explained that the program came in a 104 KROM plus a cassette, giving nearly 100,000 words and data, as opposed to the usual maximum of nearly 10K, they were well satisfied.

The cassette versions for the Commodore Spectrum and Amstrad are only £1.99. After you consider that in addition to a first class program you are provided with extra items such as Doctor Who, history, literature, detailed learning booklets, symbols card, secret data, symbols etc. (including the DOCTOR game transmission value for money). All versions are also planned.

CAFE ROYAL LAUNCH

32 BIT systems from the Press and Software Distribution standard the popular Launch of Micro Power's DOCTOR WHO computer game in London's CAFE ROYAL, in Regent Street. The first part of the proceedings was devoted to describing the game scenario the way the game was developed and the comprehensive marketing strategy being implemented. Of particular note was the £25,000 Advertising Campaign.

One special reminder was the degree of support being offered to distributors and dealers. Most major distributors are being offered Personalized Trade Dealers POC. This each distributor will be able without much effort to mail out to each of his dealers all the necessary details of the product. The dealer is invited to send his posters and also a few demonstration copies to be sent to him in the shop. Due to the widespread popularity of Doctor WHO the game is expected to sell extremely well through the High Street multiples.

Later on, those attending were treated to some view of the highly detailed and extensive graphics, spanning the whole of the extensive playing area. Particularly impressive was the brilliant square of freely horizontal architectural scrolling.

The event was rounded off by a question and answer session and a superb buffet. A good time was had by all.



ROD COUSENS TO EXPORT DOCTOR WHO

Micro Power have entered into an agreement with Rod Cousens — Managing Director of Out Lines — to market the export sales of their new DOCTOR WHO computer game.

Bob Simpson, Micro Power's MD, said, "Having got to know Rod at CGS81 meetings, and appreciated that, beyond his industry, he has much knowledge of overseas markets. I am delighted that he has agreed to act for us, with the Commodore 64 and Spectrum versions having the greatest potential. It was obvious that we did not have the time or experience to handle this aspect of the marketing ourselves."

Bob Cousens, commenting on the deal, said, "I am pleased to be involved with Micro Power in promoting such a prestigious product. The Doctor Who program should sell very well both at home and abroad. This highly complex arcade-style adventure is an excellent tribute to the popular TV character, whilst, having a great challenge in the most sophisticated form. The extensive program documentation has been translated into German, French and Spanish. Domestic buyers contact Rod on 0935 458800."



the launch group: Left to Right, Bob Cousens, Alan Butler and Ben Cresswell

NEW MOVES ON ANTI-PIRACY

Micro Power have taken the unusual step of keeping the original version of their DOCTOR WHO program under copyright while release date is delayed.

A spokesman said, "We have put together a slightly enhanced version of the highly complex adventure consisting a substantial part of the main puzzle etc. This will give consumers and trade buyers a chance to assess a program without any risk to Micro Power that a copy could be made. We will also very soon have the first of the puzzle set solved before release date."

The fact that the program pack contains several passwords necessary to the player in the course of the game, has the added advantage of making piracy very expensive. Micro Power believes that the provision of a number of passwords with account to 32 BIT programs helped to reduce copying by the "ghetto" market. In spite of the widespread use of it is of a unique design to further their commercial policy.

RELEASES

Robbiling away

Virgin Games have decided that it's the right time to pull the "Robbie" label out of the hat. Virgin bought the label about 18 months ago, but as Mark Alexander explains, "The software started to really become again after a year or more as the children so we feel that this is the time to launch our Robbie label."

Unlike the by-line "Enter than Budget", the four launch games will priced at £3.99 (one out from above and below) to encourage and inspire.

Also for the C64 will have all you multi-layered accident trapping with joy screaming volcanic terrain or boogie buggies and monster raptors — in the hope of finding the necessary components to build a bomb. You'll have to break codes and time records — but hopefully nothing more serious — in order to get your just deserts.

The aftermath of pyrotechnics' explosion, *The Great Fire of London*, on the Spectrum, has two in the quadrate role of Lord Mayor showing the flames with your team of fire-fighting experts. So it's back to the plague-ridden, rat-infested 1660's, London doesn't change much and it's up to your skills to re-write history.

None from the sales is *High Rise Horror*, for the BBC (also again London doesn't change much) with you plotting a seven-block from a whole host of tactics.

Finally *Darkside* again on the C64 has you bewitched, bothered and bewitched in the magical maze of the underworld. Like a little Toy man of the outer regions — you'll need various weapons and even a few charmed omens — and all because the secrets are hidden away.

Plans for regional labels of Robbie — Scottish "Robbie" and Irish "Robbie" — have yet to be considered.

DOROTHY

HIGH RISE
HORROR

ZEPHYRUS

THE GREAT
FIRE OF LONDONTHE GREAT
FIRE OF LONDON

DOROTHY

Virgin Games!

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

1. *Explain the importance of the following factors in the development of a country's economy:*
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 (b) *Physical resources*
 (c) *Capital resources*
 (d) *Technology*
 (e) *Government policy*
 (f) *International trade*
 (g) *Infrastructure*
 (h) *Education*
 (i) *Health care*
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Three specimens of *P. bifasciatus* from the same locality. The first specimen is a male, the second and third are females. The first specimen is a young male, the second and third are adults. The first specimen is a young male, the second and third are adults. The first specimen is a young male, the second and third are adults.

1000

[illegible][illegible]

Forward—this year, you can get a lot more from your money. In fact, you can get more than ever before. **Comcast** is the only cable company that gives you more than 100 channels, including HBO, Showtime, and more. And you can get it all for less than \$10 a month. So call today and get the most out of your money. **Comcast** is the only cable company that gives you more than 100 channels, including HBO, Showtime, and more. And you can get it all for less than \$10 a month. So call today and get the most out of your money.

[illegible]

1998

There is another new Liverpool software house and it is currently working on a Macintosh-based name

I know that you've heard that before, but this time it just could be different — the programmer concerned is none other than Dennis Ritchie, who recently left Bell to start Athena, Inc.

The game is called **Robot Maze** and is quite a change to *Tron*, who has the arcade hit. Dale Thompson's *Demolition*, *Himbo* and *Cyber* do his work. It is certainly an arcade game and has over 100 different screens to play to cover the three different levels.

The first level has a puzzle reminiscent of a Jeopardy game in which you travel the water world picking up envelopes. The second screen features a transportation game which allows access to the third level, the Test Centre.

The book is a dried and as the end of the game by messages to re-program himself and then become the Russian Miroslav of the life. It certainly looks exciting on paper and with graphics by Mike Smith, also of Golem, the result should be spectacular.

The game will cost £7.99 and be available from the end of October.



SOFTWARE



Frank Bruce's Boxing

deserve for an attempt to produce a boxing game which looks away from the usual Other simulations and a side-on view of the ring, but this one shows the opponent face on with the back of his frame in the foreground.

There are eight cartoon opponents, all with silly names, and their attributes are stored in separate files on the reverse side of the cassette.

Control of the boxer is difficult and you have to learn down your joystick before the game commences. This is because there are two ways at which control can be executed either with one joystick and the keyboard or with two joysticks. Either way, it is difficult to move unless the controllers are fed directly.

The first opponent is the Canadian Crusher, a mean-looking fighter who, if the chosen route is anything at all, is a heavyweight with enormous shoulders, but some of these show as the Crusher tries to send down your opponent.

The scores display for each fight shows knock in the top left corner and the opponent on the opposite side of the scoreboard. Under this is the ring with a line speed audience randomly cheering the boxer on. An indication of your boxer's stamina is given by a line which extends for each blow landed towards a KO symbol. When this line reaches the symbol a few well landed blows will knock the punch-drunk pugilist to floor of you.

After three inch knock-downs in the ring whether they be five or against you, the boxer will not rise again.

Victory will display an Elit Video Boxing Associates

Membership Code which is based on the matches which you have entered. This code is the key to allowing you to load the next boxer into the ring. It's a pity that more thought did not go into the design of the eight cartoon characters which make up this code. It found it difficult to decide whether the next character was a fighter 'D' or a 'D', or a 'D' or a fighter 'D', etc.

The edge of punches as they disappear is sufficient to keep you tied up in knots throughout each blow. In addition to punching right and left you can duck, dodge right and left, and come on lower post guard. Changing of the guard does mean whether the next punch will be a body blow or one to the head, and a controlled variation between the two can open up the game necessary to land a scoring punch.

When the KO meter reaches maximum the knocking capabilities are increased with the addition of an opponent which can be the same to choose but if the opponent lands a blow the meter will drop rapidly and the referee will prevent you start again.

A master table is kept of the record times in which the various opponents have been defeated during the current session but it doesn't appear to be possible to save these results to tape to keep a running record of the victories achieved over the course of several sessions.

Whatever your view on the subject of boxing in the real world, this game holds a lot of excitement and underlines the skill in boxing required for successful success. Maybe there's already too much violence on television but perhaps there's a little room left for a game of this quality. **E.B.**



Merlock the Mado

Merlock, the Mado contains two adventures, forming the first two parts of an eight part challenge which, when completed, will enable you to claim a free Terminal Merlock Digital Watch.

The first adventure is The Deeds of Glasgarry Hall is where you must find deeds and bonds concealed in Glasgarry Hall, forming the bulk of the estate of a rich merchant who had retired to a refuge with some loyal and long-suffering servants. The action, despite the introduction, is modest.

Some of the rooms are illustrated in graphics, which fill about a third of the screen, and all the locations have a reasonable description, helping to build up the atmosphere. However, the game is very long about how you can refer to objects and to make matters worse there is no vocabulary given, so that judging the appropriate verb is difficult.

The other game, The Ashes of Alricard, is best forgotten. Although predominantly text there are some graphics of some of the events — no attempt at depicting an amazing description of the location has been made. For example, "You are in a grand yard most of the pines are symmetrical with weath and shape like that."

The most glaring mistakes in the text are the confusion between "here" and "her" and the use of "your" instead of "you". The game is straightforward, provided you don't get randomly killed by wandering snakes.

Even though The Deeds of Glasgarry Hall is only the boxer game, it is far better than the poor commercial introduction — at least the price is reasonable. **S.J.B.**

Price £5.95

Publisher: Terminal Software
Address: 251 Bray Old Road,
Prestwich, Manchester M35 9AW

Price £7.95

Publisher: Elite Systems

Address: Anchor House, Anchor Rd., Aldridge, Walsall, W Midlands

004





Ulysses and the Golden Fleece

Despite the apparent confluence within the title, this is an excellent adventure which has stood the test of time remarkably.

If my Greek mythology is correct, it was Jason who undertook the original quest for the Golden Fleece, but I'm sure the programmer's very aware of this and have merely added Ulysses' name for the sake of a richer series of problems to which to dare.

About five years ago, this was the first adventure which I ever played, so I might say if this review has something of a raw glow of nostalgia about it, in those days it was available for the Apple computer and its graphic screen even predate The Mouse, plus the fact that even the original had a certain amount of activity included. For instance, at one point you see a boat floating above the sea. The command "take boat" results in the expected response "taken", but the boat also disappears from the graphic screen.

The aim is to find the Golden Fleece and to accomplish this you must first of all wander about the river finding money and buying weapons and provisions to see you through. A nod to the king's policy is always a good idea, but before you can enter you must give the guard the password in the original game that, for some inexplicable reason, was "yes" but I'm pleased to note that this has been changed and my lips are sealed.

Another guard is positioned on the station guarding a ship which is also required for the adventure but first a crew must be hired. The only likely source of a crew is the local tavern where a healthy assortment of drunken men can be found. Still bigger can't be chosen and

with a bit of luck and bribery they will follow you anywhere and may even rowing.

The game is only available on disc and like the Zork Trilogy from Infocom the vast majority of the game is called into the computer when needed from some of the responses are left on the disc which gives the game a slower response time but access to many more phrases than would otherwise be possible.

The only way in which this game shows its age is the range of vocabulary used. In a game of this sophistication we have come to expect a reasonably intelligent system which can decipher fairly complex sentence structures. Since this is the preserve of the disc and also because I judge adventures by the complexity of the questions encountered, I won't help on too much about this.

During the game you will meet many other characters who will help or hinder — remember, strange things happen to us. If you slip off a cliff around see much as you try to expostulate the cause, a worried angel appears to tell all that you possess and you may as well quit and start again.

In common with most adventures this has the facility to save your position at any point so that you can come back another day to complete your journey or merely safeguard against being wiped out in the next turn to the next.

The conversion to the 48 appears to have been extremely faithful to the original, even the graphics are recognisable though colour has been added since I first played it all these moons ago.

Meeting this conversion has reminded me with an old friend and I recommend that you give him a chance too. **E.B.**



Subterranean Stryker

This game is rather reminiscent of the defender type of game but it also borrows from other popular arcade games.

You are playing a specialist and must collect the various trapped prisoners who appear to be working in the mines. This involves you firing around the caverns, destroying or avoiding any undesirable items that get in your way.

The game's landscape is rooted in the age of fantasy, particularly the Dungeons and Dragons. You have narrow gaps to get through. Moving barriers to pass carefully to get into a previously inaccessible section of cavern and must avoid traps to deal with.

The game is rather downbeat and doesn't employ any stunning new features. The graphics are not up to the standard of Sonnet and the sound is average. Yet this game holds a charm, something indefinable that makes you want to have another attempt.

This is a decent program from Amstrad. I would, however, like to have seen it at a lower price. I think much of their software for the Amstrad should have prices reduced to a level more compatible with Spectrum software prices.

Gravelside over, I think it's an enjoyable arcade game. **C.G.**

Price: £5.95

Publisher: Amstrad

Address: 160 Kings Rd, Brentwood, Essex CM14 4BP

AMSTRAD



★★★★★

Flipped



★★★★★

Hooked



★★★★★

Keen



★★★★★

Tawny



★★★★★

Combined

Price: £14.95 (disc only)

Publisher: US Gold

Address: Unit 10, The Parkway Ind Ctr, Hemmoe St, Birmingham B7 4L9

USG





Highway Encounter

The aliens have landed! Original wharf! Having conquered the rest of the world they have set out along the fine great highways to world domination. Why they are travelling by road I don't exactly know, but it's the basis of a great game.

You are what is known as a "mean varmint" — a type of alien. You must take your merry band of double guns down the road, defeat the incoming aliens, and destroy the enemy stronghold. This fortress can only be destroyed by using that alien powerful weapon, the vortex. The vortex can be incredibly powerful but it hasn't got much of a range. It is for this reason that you and your alien buddies must push the vortex all the way to the enemy camp.

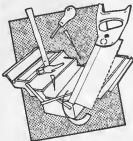
The road is littered with oil drums, pillars, and burning cars. All of which make pushing a vortex a pretty tricky business. Especially when the decide you are working with are a little lacking in the old logic books. They live up behind the water and gas, they only push in a straight line, and they only stop when they hit an immovable object or you send it down the road. Should you have to rush off and destroy a few aliens they carry on without you, and get shut to that! Defeating your alien vortexes is of the utmost importance so they are your replacements should you be terminated.

The graphics are three dimensional, complex, and very Sinclair Spectrum. Fortunately on this occasion the fast factor did not detract from the game's playability, it's a winner! **J.R.**

Price: £1.85

Publisher: Vortex Software

Address: Vortex Hse, 14 Keston Ave, South Lincolny Rd, Salford M6 2GL



Scratchpad

A common criticism of people not used to the delights of computing is that computers are nothing more than expensive toys which, if you are really pushed to justify, might just be used to sort out home finances and the like. Of course, they always add with an air of having won the argument, you could do it with a pencil and the back of an old envelope. But of course.

What then would they make of Scratchpad, an ideas organiser for the Beeb? A facility fairly common on machines like the Apple or the Mac, this is really just period mail paper web large — a self-organising and to the flow of ideas that usually get lost precisely because they are on scraps of paper. Supplied on disc, you use the program to enter up to 48 ideas (256 with the 6802 Second Processor) as one of 30 calls or as a general catch-all roll note. Once ideas have flowed and the utility is use generally encourages you to keep thinking and not worry

about how to store ideas: you can then copy each off in turn and start writing the ideas.

This you can do in various useful ways: ideas can be altered, copied, deleted, swapped between rolls, edited, changed in order or numbered to show the sequence of a run of ideas. At your leisure, you can arrange in order to your earlier random ideas — as well as returning at a later date to ideas often used on disc. Finally, the current ideas can be printed as your chosen format or stored in a file into the word processor View.

I found Scratchpad very useful and can use myself morning to a again and again — of course, I do a fair amount of writing. There are some minor quibbles about it, however, the main ones from my point of view being the lack of an option to create a Wordware file and the price which, I'm afraid, will leave its market. Something like useful and easy to use really ought to do well — despite the drawbacks with their pencil and paper. **D.R.**



Halley's Comet

Cared those expensive visits to London's Planetarium — this program effectively replaces them. Don't be misled by the title, as are referred to Halley's Comet is a serious portion of the superb educational production. When Halley's Comet has gone this program and its comprehensive manual, will still be providing relevant content in any school department.

Known with the Beeb Pascal Compiler a complete an unbelievable amount of information that is used to produce StarMap and History or the in any date before today or in the future.

The first program, The Solar System, shows planetary orbits on a large or small scale and from any angle, then shows the objective — comets. The planet containing the Earth's orbit, Program Key "H" removes the need to "B" shows what happens from March 1984 to September 1985. That Aug date chosen can be viewed and the orbit of Halley's Comet can also be tracked with planets recommended by letters. It is suggested that March as 18.8 C is found when Earth, Jupiter and Saturn are in a straight line — called a triple conjunction — that is a possible explanation for the Star of Bethlehem.

The next Planetarium program shows the sky and view below the horizon for any date in any direction chosen. Although only 240 of the brightest stars have been used, there is still sufficient to see on a light screen — so Atmos have provided a fascinating key.

I could go on crudding the various — but will try to stop — it's an astronomical experience. **T.M.**

Price: £1.95

Publisher: Atmos Scientific Computing

Address: 21 Crawley Avenue, Habborn, Tyne & Wear

AMSTRAD



Price: £24.95

Publisher: Interactive Software

Address:

BBC



SPECTRUM





The Epic

A bold attempt by Turtle Software to give value for money by putting its games onto one cassette. Reviewed in that light, the collection succeeds. But some of the individual programs are not up to present standards.

Cameo one, *Alphabet Samples*, needs Professor Hells to collect pieces of his robot, Frankie, to assemble them on a bed before an explosion, creating various points of equipment and to score 1, where I was stopped. It has large animated sprite graphics, smooth movement, two channel simulated music, high score table, bonus points and extra lives.

Seymour has three types of spiders intended to eliminate three different creatures plus a fourth to destroy. T.M.Y. The first game has the spider victims and a bonus lost at screen bottom and a hand spring that you move around the screen.

3-D Blood Dungeon has a gory looking scene, vampire threat, four difficulty levels, high score tables and high kill. You visit 48 rooms, killing the snake like gashdroids in the rooms that match your spell form level, to rescue Paul. Running from the phanty Paul.

Next is *Sparks Alive*, where the first snake man find new eggs in 48 locations, and One Man and His Job, a dodger and collect game. Follows only one comes to finally squash a tedious face.

The final game, *The Hoards of Taramba*, has three stages in getting a space freighter out of a desert in earth, Mars.

You can't load a game separately, but have to load all five.



Delay Thompson's Super Test

For his Super Test, Delay Thompson has designed one night and a day, divided into two days of competition — only one day can be loaded in a minute. In running, cycling and jogging, you're making more than strenuous physical action — or keyboard testing — is needed. The penalty cheating and slumping require both physical wiggling and careful timing if you're to avoid suffering a debilitating fall on the slump, or you could waste your penalty by believing the idea over the bar. Fortunately, the keys can be re-defined, so that you can sit at the keyboard and wait.

To patrol showing one of six targets will appear for a short time and you have a right to push towards it, but you can't return your steps. A close up of the target shows the position of your steps — very useful. Later the night is slightly not aligned.

Take off, number of mistakes, time limit and overall pace are marked by four judges on the screen board down. The devil's height depends on the timing of the jump while continuous left/right movement makes you conscious.

For the do player you must strike a delicate balance between going fast enough to qualify and going slow enough to manipulate between the poles. You have three lives, a life a box every five seconds and a penalty — every five seconds targets are hidden each time round.

Smooth action and good graphics make this game great fun — if you and your computer can stand the action.

Price: £8.95

Publisher: Ocean Software

Address: Ocean House, 6 Central St, Manchester M2



Brian Jack's Superstar Challenge

Frankly, I've had my fill of joystick-aided games. They usually place too much emphasis on throwing the joystick back and forth and little to do with strategy, hand and eye co-ordination or any other skill.

I held higher hopes for this game. Having watched and enjoyed the previous Superstar series, in addition, I hoped that the game's more interesting selection of events would be done with skill by the programmers and produce an excellent offering. Sadly, I don't think that this has been the case though more likely than not it will still be a big mistake too.

The events on offer are 100 metres dash, cycling, swimming, running — three foot slalom, little more than moving the joystick back and forth as quickly as possible. The other four events, apart from the jump ball, hammer and football are a little more sophisticated.

The four events are well simulated in this game and will serve to become proficient at. As such is the best of the eight events in that there is a fair amount of skill involved in scoring well. Football, as everyone knows, seems to be more of a lottery than anything. Controlling your footballer is no different around corner, you must then let him go for his shot at goal. You seem to have very little control of this latter stage.

Overall, "Super" seems a fair rating for the game. The graphics are good and the whole package runs smoothly and at a reasonable price but I found it lacking in sophistication. C.A.

Price: £1.95

Publisher: Marsch

Address: Marisch House, Bay Terr, Percyway Bay, E. Rovers BN44 4BB



Amnest

How often a program predicts that you don't use every day. A cassette offering a complete diagnostic test for your computer, in this case, your Amnest. The package essentially consists of three programs, each checking out a part of the Amnest hardware.

The first program, according to Amnest, "examines the major alarm chips of the computer. It's built precisely to board them a will be successful." On running the program various pretty diagrams appear on the screen which Amnest says are merely a by-product of the interrogation of the CPU, my own view is that they have been added by Amnest to make it look as though something is happening.

The programs on the other side of the keyboard and cassette are the same as the first. The video test, simply eight colours, text and blocks in 16, 32, 64, 128, 256, 512, 1024, 2048, 4096, 8192, 16384, 32768, 65536, 131072, 262144, 524288, 1048576, 2097152, 4194304, 8388608, 16777216, 33554432, 67108864, 134217728, 268435456, 536870912, 1073741824, 2147483648, 4294967296, 8589934592, 17179869184, 34359738368, 68719476736, 137438953472, 274877906944, 549755813888, 1099511627776, 2199023255552, 4398046511104, 8796093022208, 17592186044416, 35184372088832, 70368744177664, 140737488355328, 281474976710656, 562949953421312, 1125899906842624, 2251799813685248, 4503599627370496, 9007199254740992, 18014398509481984, 36028797018963968, 72057594037927936, 144115188075855872, 288230376151711744, 576460752303423488, 1152921504606846976, 2305843009213693952, 4611686018427387904, 9223372036854775808, 18446744073709551616, 36893488147419103232, 73786976294838206464, 147573952589676412928, 295147905179352825856, 590295810358705651712, 1180591620717411303424, 2361183241434822606848, 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Southern Belle

There is a full simulation of driving a steam engine at the base from Kansas to Virginia. The screen divides into a number of sections, the principal one taken up by a view into the open air to allow you to see various gauges, while towards the bottom of the landscape like bridges and stations scroll at one frame 3-D giving the impression of movement. Other sections deal with messages, signals, gradients etc., while the remainder you're supposed to run to can be called up with another key press. Graphically it seems just like the Spectrum version, and I would have liked the Amstrad's superior graphics if I had been told, though there are some interesting detailed scenes from the steam era.

Driving a train is hard, so there are first class instructions, and the screen to take only partial control with the computer doing the rest while you learn. The engine responds clearly to your handling, and all sorts of things can go wrong! At the end of a training run, you get a detailed assessment of your performance, including what you did badly. To be fully in control, you must set eight different controls, stick to the timetable, and observe the safety rules. I suspect that everything will only come after weeks of practice.

Pleasing to report, therefore, that the whole thing is very simple — from the screen, through training, to a second run itself — and all areas of time is completely free. More enjoyable, and good value.



The Professional Touch: Screenplay

A tape and disk package which seeks to show you the production techniques involved in making a film/TV programme thus providing you with sample software to write, design the scenery, compose the music, and animate the characters in an on-screen cartoon which can be transferred to your video recorder.

The detailed, well-illustrated book gives some historical background, the workings of a film camera and film strips, how TV works and the various scenarios which go into a programme like production, wardrobe, soundtrack, camera and so on. Very informative.

The software is a compact suite of video-driven programs which allows you to write your screen captions, draw backgrounds, design scenery, compose and save music, edit all the results together, save to tape, and finally, display your creation. You can employ animated characters, speaking lines, accompanying music, and add away until you are galled with the result. Instructions are also given for saving this onto video tape, but they presume you much in terms of technical knowledge and equipment (you must have a modulator, for example). The result of this is to limit you to what can be held in memory at any one time, which is not much.

Even so, it's an intriguing package which gives genuine insight into what has much of value in the software, even though it is of limited sophistication in terms of the finished product, something akin to the illustrations which accompany some adventures.

Orm and Cheep: The Birthday Party

Lunchtime TV favourite Orm and Cheep appear in the computer in Mouse Square which was reserved in a previous issue of HCW.

It is Orm the worm's birthday and his friends Cheep, Moie, Sned, Hedgehog and Mouse have all been invited to his party. Cheep has the job of rounding everybody up because they are lost. Moie is in his laboratory of tunnels and the other three are somewhere around the house of rods which surround Orm's house. Also lurking about are the villains of the piece: Cree, Cat and Luc.

Using only the few buttons of a joystick or by pressing any key on the keyboard, Cheep's direction can be controlled until all of the party guests have been found.

Before setting out on his search, Cheep must help Orm to find the ingredients for his birthday cake. All of these items are hidden in just and after being told what it is each job, Cheep must find them in the order which Orm dictates. Failure sends the poor creature to the floor and the game repeats until Cheep is successful.

The maps are not too difficult and detailed mapping is not really necessary but, as the instructions suggest, it is a good idea to encourage the child to map out the scene.

After ground the road junctions each have a signpost and the colour of each sort of the sign changes in time and pressing the key gives Cheep in the direction indicated. Underground Cheep moves to each exit in turn and after finding holes the access must be restored until the door in the outside world is located.

The screen reveals are found lurking at various points around these mazes and underground they block some of the tunnels but above ground they

can be shunned if Cheep has the correct number of the party with him.

The hardest part of the game comes when the party begins. All of the friends must find their correct place at the table under Orm's guidance. As you change their positions, Orm turns his head and a beep is heard for each party member who is in the correct place. Confusion can be caused because Orm also counts himself as a member of the party and his empty place is also indicated by a beep. If, for example, three places have been found which include Orm's position, and one of the other two correctly placed party guests is moved to Orm's place, the beep tally drops from three to one. I feel that this could easily confound a very young child's attempt to complete this section of the game.

This is further compounded by Orm's arrival when Orm has disappeared to fetch his birthday cake because the friends panic and move around the table. On Orm's return, the player must then rearrange the party once but the acceptable order has changed and the trial and error process must once again be undertaken.

If the programmes had decided to give an option whereby the correctly placed visitors finished or something, I think the game would have more appeal to a younger audience.

The graphics are of quite a high standard generally and the sound is not unpleasant. Really no only quality relate to the difficulty level of the game which I feel would seriously challenge many adults in along children. Since I have seen how children seem to have an infinite rewards computer games I may well be proved wrong but I'm sure that this package will keep many a little horror easily amused for long peaceful periods.

Price: £7.95

Publisher: Horizon Consultants

Address: 583 Milton Trading
Rye, Middles, Aylesbury, Oxon
OX4 4JZ



Price: £8.95

Publisher: Macmillan

Address: A Lady Evers St,
London WC2E 8LP



Price: £5.95

Publisher: Macmillan

Address: House Mills, Basing-
stoke, Hants RG21 2NS





Wordware

In the battle between the two main BBC word processing systems, View and Wordware Plus, users of the former (Wordware's) product have to for long hours served with extra utilities and linked files. Now, in the last couple of months, the Wordware Plus system is striking back, and when better than with this utility disc from Babbage's which adds the 20 or so more useful additional commands?

Assuming you have Wordware Plus fitted at a ROM, loading Wordware gives you a fully interactive set of utilities placed in segments 9 of the word processor, with arguments if removed for additional actions loaded from disc. Once loaded, you can move easily between Wordware Plus, Wordware and BASIC and even to memory a kept safe. It sets a number of internal variables (listed so you can avoid those if you have other programs to run concurrently) but there is no full error trapping, due to the lack of error handling facilities in Wordware Plus.

So what are you adding for your money? A fair number of the utilities really make the use of Wordware Plus rather easier, such as an auto-save facility for text files, a status report with a contents summary of each segment, an extremely convenient transfer of text from one to another (usually, as with such bits, possibly only manually), a function key editor and a selection of general utilities to use on the current text area (such as automatically aligning columns of numbers at zero).

Rather more complex are the disc menu options which

provide detailed information on text files held on disc (filenames, directory listing, file length and the first 25 characters of the file) and a simple text editor to replace the rather inflexible Wordware Plus search and replace options. These, like the rest of the package, are simple to use.

Finally, there is a set of utilities designed to make printing your processed text a little easier. You can, for example, simply and automatically start any required printer code — this defaults to the Epson range but can be readily changed to suit your own own printer. Further, you can now choose pre-defined characters from a menu and automatically add these to your text, replacing the lengthy process within Wordware Plus which allows you to calculate and include sequences of embedded codes. However, this is only simply to use as suggested and not as Wordware Plus remains unaware of details of these symbols and so your formatting and justification will be upset. A standard page header and a label printer utility will be upset. A standard page header and a label printer utility are also included.

As mentioned, this disc is easy to use and adds some previously useful extra commands to Wordware Plus. It is a useful value and should be considered as highly desirable by any reasonably serious user of Wordware Plus. As a bonus, there are even six utilities included to help in the development of your own Wordware Plus programs — variables lists, various utilities and so on.

B.R.

Decision in the Desert



Decision in the Desert

It is essential to see a new war game covering the World War II North African campaign in detail.

The game possesses five scenarios, each covering a major battle in the campaign. Detailed scrolling maps allow the player to have a grasp of both front and overall strategy. All kinds of land forces are involved — tanks, infantry, aircraft, artillery etc — as well as all the different vehicles.

Commands can be issued by joystick or from the keyboard, and the game plays in accelerated real-time. There are no turns in such — units react to the following orders of their unit — one player from the action and must see time. As units have an I.Q., sometimes they will act on their own initiative. The battles end when "victory conditions" are met by either side. A score and finishing rating is given.

One of the excellent aspects of this programme is that either a computer or human opponent can be chosen for either side. Numerous options have been added to facilitate gameplay. Riders can be weighed in and notice players. Sound effects, radio messages, and the ability to refile and graphics and speed up/slow down play are just some of the attention to detail which Micro-prose have included.

Other features include changes in map colour to represent night/day, and on the XL, a hardware facility to see the highlights of the battle. Overall, a superb offering which makes this kind of war game a joy to play. G.C.

Price: £9.95 (normal)
£14.95 (gold)

Publisher: Micro-prose Ltd/US Gold

Address: US Gold Ltd, Unit 80, Parkway Ind Centre, Hooton St, Birmingham



Sparklers Special

The completion of late '83 early '84 games for the Spectrum comprises four ages: Shogun, On Attack, River Roper and Tower of Babel.

Tower of Babel is a sub-Atari Atari maze, search, collect and zap game with modern graphics, comprehensive controls, and breakneck speed. On Attack sees you as a knight stop some barons with all kinds and sword to fight off the invaders who constantly attempt to reach you with ladders, while Shogun sees you with arrows. The most therefore dodge and weave while employing your weapons. Quite tricky!

Shogun is also graphically very sophisticated. A vast scrolling yellow plane with rivers, boats etc is abundant, and is traversed on your horse like an obstacle and you're thrown in the first phase you must find the stage and jump in it, then guide it through the mountains (picking up passengers, gold and ammo). Finally, you must ward off the Indians. Equally tricky.

River Roper is perhaps the best known of these games, where you have an overhead view of your boat on the river, and must guide it in maximum speed avoiding crabs 'n' rocks, picking up passengers as you go. Get the message, and you won't get booted from a planet.

Although they are fun, none of these is up to the standard of the best ZX Spectrum as a result of rough edges and crude graphics. The pack shows genuine creative ideas, however, so if it's what you want, then it's good value. B.M.

Price: £7.90

Publisher: Sparklers / Thorn EM

Address: Upper St. Martin's Lane, London WC2H 9ED

Price: £25

Publisher: Borlough

Address: PO Box 35, St Albans, Herts

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Each issue will be produced in cooperation with Escaan our Interplanetary Adviser who on his home planet, Aargoo, is a member of the Association of Supreme Players. He will be monitoring developments in the games industry and advising Computer Gamer readers with all their gaming problems. Included in each issue will be pages of review of the latest games releases, special Adventure features and a help-line, invaluable articles on how to 'crack' specific games a high-score page, exciting programs to type in for most of the popular home computers, news, competitions, reviews of peripherals and computers themselves if relevant to the games field and LOTS more.

Also, all readers of Computer Gamer will have the opportunity to join our tremendous Reader's Club — each member will receive a membership card and a regular newsletter which will contain up-to-the-minute news and all sorts of offers on a variety of products.

So all-in-all there's no way you can afford to be left out of the great new revolution in games computing — rush out and buy your copy NOW!

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READER OFFER

This week we present the first of our Reader Offer Specials. Using the coupons on this page could save you nearly £100 — £97.65 to be precise.

There's offers for owners of all the most popular home computers and on a huge variety of software and hardware. First, in the hardware selection is the Metros Audio Speech synthesis unit for the BBC which was highly rated in our review. BBC owners can save £5 on that until

There are adventure games for dungeon enthusiasts, arcade games for those with itchy fingers, quiz games for those with time to spend on trivial matters and educational games

for the younger members of the family.

There are eight software products on offer for Acorn owners, nine for Spectrum owners, six for Commodore users and one each for Amstrad and Dragon owners. The offers come from a variety of big names too: A. 'n' F, Kosmos, CCS, Mirrorsoft and Addison-Wesley. We think that you'll find them very hard to miss — so find those savings, cut your coupons, send your order and grab a bargain!

Full details of how to order the products are given on each coupon, please note that orders should not be sent to our editorial address. You should

keep a record of your order, cheque/postal order numbers, data posted and the address you posted your order to, in case you need to make any enquiries.

If there is nothing that you fancy this week, start saving your pennies! This is only the first of three special editions of HCW, each containing coupons for huge discounts on computer products. Look out for offers from Virgin Games, Sega Systems, Gemini Software and many other major suppliers — all yours for the asking.

Don't forget about your free Magazine cassette tape offer and the special subscription deal. HCW is the great one for value!

KOSMOS SOFTWARE

Mail this coupon with your payment to: Kosmos Software, 1 Pymore Close, Harington, Durham, Durham, DL3 5LX

Qty	Product	Machine	RSP	Saving	Our Price	Order Value
___	Answerback	BBC/				
___	Spout	Elc	£9.95	£2	£7.95	
___	Answerback	BBC/				
___	Scatter	Elc	£9.95	£2	£7.95	
___	Answerback	BBC/				
___	Scatter	Elc	£9.95	£2	£7.95	

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Name _____
Address _____

Post Code _____

Offers end 24th December 1983 or whilst stocks last

A'N'F

Mail this coupon with your payment to: A'n'F Software, Unit 9 Canalside Ind Est, Woodrow St Est, Rochdale, OL16 5LX

Qty	Product	Machine	RSP	Saving	Our Price	Order Value
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___	Beamed Abbey	BBC	£5.95	50%	£2.98	
___	Cytron Capers	BBC	£5.95	50%	£2.98	
___	Orphons	BBC	£5.95	50%	£2.98	
___	Camelion	C64	£7.95	50%	£3.98	
___	Scrambling					
___	Ali Gato	Dragon	£5.95	50%	£2.98	
___	Cytron Attack	Elc	£7.95	50%	£3.98	
___	Cytron Attack	Spei	£5.95	50%	£2.98	
___	AlphaTalk	Spei	£5.75	50%	£2.88	
___	AlphaGen	Spec	£5.75	50%	£2.88	

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Mail this coupon with your payment to: Addison-Wesley,
Finsburygate Rd., Wokingham, Berks RG11 2NE

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CCS

Mail this coupon with your payment to: Coss Computer Simulations, 14 Lampson Way., Bickhams, London SE3 7EL

Qty	Product	Machine	RSP	Saving	Our Price	Order Value
_____	Neto Alert	Spec	£5.95	£2	£3.95	_____
_____	Marwick	Spec	£5.95	£2	£3.95	_____
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_____	Air Desert	Spec	£3.95	£2	£1.95	_____
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_____	War Zone	Amst	£5.95	£2	£3.95	_____

I wish to order the goods detailed above and enclose a cheque or postal order to the value £_____ payable to CCS SOFTWARE

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METRON AUDIO

Mail this coupon with your payment to: Metron Audio, 7 Delfish Rd., Hammering, Park, Dorset BH11 4NE

Qty	Product	Machine	RSP	Saving	Our Price	Order Value
_____	Tutor Master Speech Spoken	S&C		£10.75	£5	£10.75

I wish to order the goods detailed above and enclose a cheque or postal order to the value £_____ payable to METRON AUDIO

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MIRRORSOFT

Mail this coupon with your payment to: Mirrorsoft, Mirrorsoft Ltd, Workshop St., London EC2A 2EN

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_____	Star Eggs and Calculations	C84	£13.95	£9.95	£3.95	_____

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DICEY BUSINESS



WEBB COMPUTING WORLDWIDE 800/858-1880 Page 2

```

1) d#d((INT f+1)/2)) 14 TO 41
425 PRINT AT x(p(15))+1,y(p(15)
1))=1;d#d((INT f+1)/2)) 14 TO 41
430 PRINT AT x(p(1)+3,y(p(1))+
1);d#d((INT f+1)/2)) 17 TO 91
435 PRINT AT x(p(f+1)+3,y(p(f+
1))+1;d#d((INT f+1)/2)) 17 TO 91
450 NEXT f
460 PRINT AT x(p(15))+1,y(p(15)
)+1;d#d(d08)) 11 TO 31;AT x(p(15))
+2,y(p(15))+1;d#d(d18)) 14 TO 41;A
T x(p(15))+3,y(p(15))+1;d#d(d18))
17 TO 91
480 FOR f=0 TO 21: PRINT AT f,0
: INK 1: OVER 1:
      "  NEXT f
500 PRINT AT 0,0: PAPER 6: INK
0: " DICE PAIRS " : PAPER 5: " BY
ANDREW BIRD "
510 INP 4: FOR f=8 TO 248 STEP
48: PLOT f,16: DRAW 0,144: NEXT f
520 FOR f=16 TO 160 STEP 48: PL
OT 8,f: DRAW 240,0: NEXT f
530 INP 1
540 FOR f=1 TO 18
550 POKE 23404,0: POKE 23407,60
560 PRINT AT x(f),y(f): INK 3;d
H# 164+41
570 NEXT f
580 GO SUB 7700
599 REM ** YOUR GUESS **
600 INPUT " WHICH IS THE ODD DI
CE ? " : LINE 1#
605 IF CODE 11#)-64=odd THEN 0
0 TO 450
610 FOR f=2 TO 8: POKE 64+f, f
615 FOR n=1 TO 20: POKE 64+18,n
00+n
620 LET d=USR 64: NEXT n: NEXT
f
630 PRINT AT 21,1: "THE ODD DICE
18 IN BOX " : INP 3:CHR# 164+od
d1
640 LET r(1)=99999: GO TO 700
650 LET time=F#N 11)
655 PRINT AT 21,30: PAPER 6: IN
K 1: FLASH 1: " :AT 21,0: " CORR
ECT ANSWER IN " :time: " SECONDS "
"
660 LET r(1)=time
670 POKE 64+7,20: FOR f=1 TO 50
675 POKE 64+18,110-f+2
680 LET d=USR 64: NEXT f
699 REM * ODD DICE REVEALED *
700 POKE 23406,54: POKE 23407,1
70
710 PRINT AT x(p(15))+1,y(p(15)

```

```

)+1: INK 2;d#d(d18)) 11 TO 31;AT x
(p(15))+2,y(p(15))+1;d#d(d18)) 14
TO 41;AT x(p(15))+3,y(p(15))+1;d
#d(d18)) 17 TO 91
780 NEXT 1: FOR d=1 TO 600: NEX
T d
799 REM * REACTION TIMES *
800 IF r(11)<=12) AND r(11)<=13
) THEN LET best=r(1)
810 IF r(12)<=r(1) AND r(12)<=13
) THEN LET best=r(2)
820 IF r(13)<=r(1) AND r(13)<=12
) THEN LET best=r(3)
825 BORDER 3: PAPER 3: INK 0: C
L8
830 FOR f=6 TO 16: PRINT AT f,0
: PAPER 7: " " : NEX
T f
835 IF best<99999 THEN GO TO
850
840 PRINT AT 7,9: PAPER 7: INK
2: "AFTER THREE":AT 9,9: "ATTEMPTS
YOU":AT 11,9: "HAVE FAILED":AT 1
3,9: "TO IDENTIFY":AT 15,9: "AN OD
D DICE"
845 BEEP 1,-30: GO TO 860
850 PRINT AT 7,9: PAPER 7: "YOUR
QUIKKEST":AT 9,9: "REACTION TIME
":AT 11,9: "WAS " :best: " SECS.":A
T 13,9: "PRESS ANY KEY":AT 15,9: "
TO PLAY AGAIN"
860 POKE 64+7,40: FOR f=1 TO 50
870 POKE 64+18,110-f+2
875 LET d=USR 64: NEXT f
880 IF INKEY#"" THEN CLS : G
O TO 100
890 GO TO 880
899 REM ** INSTRUCTIONS **
7000 LET :="THE IDEA OF THIS GA
ME IS TO SEE HOW QUICKLY YOU CAN
SPOT THE ODDSIDE OUT OF THE 18
DRAWN FOR YOU BY THE COMPUTER.
      MOST OF THEM WILL P
AIR UP WITH "
7010 LET 1#="ANOTHER THE SAME
BUT I WILL NOT. YOU WILL BE GIVE
N THREE GOES AND YOUR REACTION TI
ME WILL BE NOTED FOR EACH ATTEMPT
" : Good luck " :
7015 POKE 23406,0: POKE 23407,60
7020 BORDER 5: PAPER 5: INK 0: C
L8
7030 FOR f=18 TO 2 STEP -2
7050 PRINT AT f,0: 18-f+18-31 TO
f+18)
7060 LET d=USR 64
7070 NEXT f
7080 PRINT AT 0,0: PAPER 6: " DIC

```



```
ED PAIRS By Andrew Bird
7090 GO SUB 9000
7100 PRINT AT 20,0: PAPER 63
    Press any key to begin
7120 BEEP .02,80
7130 IF INKEY$="" THEN CLS : L
ET @=USR: GO: RETURN
7150 GO TO 7130
8999 REM ** GRAPHICS **
9000 FOR f=0 TO 768
9010 POKE 51000+f,PEEK (13416+f)
9020 NEXT f
9050 RESTORE 9100: FOR f=0 TO 20
7: READ a: POKE 51020+f,a: NEXT
f: RETURN
9100 DATA 0,1,2,4,8,16,32,64,0,1
,2,4,8,16,32,64,255,0,0,0,24,0,0
,0,255,0,96,0,0,0,4,0
9110 DATA 255,0,102,0,0,0,162,0
,255,2,3,9,17,33,65,129,252,2,101
,9,17,33,65,129,252,2,8,9,17,37
,69,129
9120 DATA 252,2,101,9,17,37,69,1
29,127,129,128,128,128,128,128,1
29,127,129,128,152,152,128,128,1
28,127,128,128,152,152,128,128,1
```

```
29
7130 DATA 254,1,1,1,1,1,1,1,127,25
4,1,1,25,25,1,1,1,254,1,1,25,25
,1,1,127,1,1,1,17,1,1,1
7140 DATA 1,65,65,1,1,8,8,1,1,69
,69,1,1,69,69,1,1,29,128,128,128
,128,128,128,127,128,128,138,152
,152,128,129,127
7150 DATA 129,129,129,152,152,12
8,128,127,129,1,1,1,1,1,254,1
,1,1,25,25,1,1,254,129,1,1,25,25
,1,1,254
9160 DATA 2,4,8,16,32,64,128,0,2
,68,72,16,32,64,128,0
9499 REM ** M/CODE SOUND **
9500 RESTORE 9510: FOR f=0 TO 30
1: READ a: POKE 50+f,a: NEXT f: R
ETURN
9510 DATA 88,72,92,31,31,31,4,20
,14,254,37,32,4,239,16,237,121,3
8,79,40,32,244,238,16,237,121,44
,238,16,234,201
9599 REM ** SET CLOCK **
9900 POKE 23674,0: POKE 23675,0
POKE 23672,0: RETURN
9999 GAVE "DicePairs" LINE 1
```

HCW needs you

Have you ever looked at the articles and programs in HCW and thought you could have written that?

Why not try? We welcome submissions from readers and are always interested in your ideas and suggestions.

Submissions need to fall into one of three categories...

Programs are always supplied on cassette and are accompanied by full details of the program variables. Please type these details double-spaced. Listings are helpful, but not essential. What is vital is that the programs should be completely error free, so please double check.

Articles on certain aspects of using home computers should be no longer than 1000 words. Try to keep to the style you see in HCW and include programming examples where they will help the reader understand the subject. We will convert your sketched illustrations into final artwork.

We also use short tips, articles and brief programming routines. Any discoveries you have made about your machine might be of interest to other readers.

All contributions are acknowledged and those accepted for publication are paid for at competitive rates. The copyright in each work will pass to Argus Specialist Publications Ltd. Keep a copy of your work and include a telephone number and an SAE. Please label everything clearly with your name and the machine concerned.

All contributions should be sent to:

Submissions
Home Computing Weekly
No.1 Golden Square London W1R 3AB

GOOD BYTE

PRODUCT	PRICE	REVIEW
Amiga 500	£199	4.5
Amiga 500+	£249	4.5
Amiga 600	£299	4.5
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Amiga 4000	£1999	4.5
Amiga 5000	£2999	4.5
Amiga 6000	£3999	4.5
Amiga 7000	£4999	4.5
Amiga 8000	£5999	4.5
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Amiga 25000	£22999	4.5
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Amiga 27000	£24999	4.5
Amiga 28000	£25999	4.5
Amiga 29000	£26999	4.5
Amiga 30000	£27999	4.5
Amiga 31000	£28999	4.5
Amiga 32000	£29999	4.5
Amiga 33000	£30999	4.5
Amiga 34000	£31999	4.5
Amiga 35000	£32999	4.5
Amiga 36000	£33999	4.5
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Amiga 39000	£36999	4.5
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Amiga 43000	£40999	4.5
Amiga 44000	£41999	4.5
Amiga 45000	£42999	4.5
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Amiga 47000	£44999	4.5
Amiga 48000	£45999	4.5
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Amiga 52000	£49999	4.5
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Amiga 54000	£51999	4.5
Amiga 55000	£52999	4.5
Amiga 56000	£53999	4.5
Amiga 57000	£54999	4.5
Amiga 58000	£55999	4.5
Amiga 59000	£56999	4.5
Amiga 60000	£57999	4.5
Amiga 61000	£58999	4.5
Amiga 62000	£59999	4.5
Amiga 63000	£60999	4.5
Amiga 64000	£61999	4.5
Amiga 65000	£62999	4.5
Amiga 66000	£63999	4.5
Amiga 67000	£64999	4.5
Amiga 68000	£65999	4.5
Amiga 69000	£66999	4.5
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Amiga 83000	£80999	4.5
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RUN MONTY RUN



October

£7.95

£9.95

Gremlin Graphics are offering prizes galore to the 25 winners of this week's Monty Mole competition



Monty the Mole is back and with a vengeance. He has broken out of jail and is on the run!

If you want to try to catch him, there are 25 prizes in the week's competition and each one will include a copy of the new Monty on the Run game. There are winners for Amstrad, Spectrum and Commodore owners and each prize will include two other Gremlin Graphics games, making the prize worth over £20 each.

As an added bonus, for the first prize out of the lot there will be a quality Monty Mole figure complete with little red shovel. All that you have to do is find the differences between the cartoons below. We believe you do read us and discover more about Monty and his adventures.

It all started over a year ago with our hero trying to escape a life sentence from the local rat pit — Monty lives in South Yorkshire you understand. After getting lost underground he finds himself in Arthur's Cuckoo and from there it's prison for him.

Spectrum prizes are not a pretty place and so Sam Snots decides to try to free his small rodent friend. In the second game of the series Monty is rescued. There are many dangers in the prison and Sam has to know them all looking for the keys which will lead to Monty's release.

After this escape Monty finds himself a free man again. He isn't a happy mole free-er and so spends all his time trying to find the various efforts and money that he needs to create that he remains a free man for a long time.

This game is quite a good Computer Game called a "a bit madhouse" and "an excellent game" so there is every incentive to try to win our competition. Spectrum winners will receive the whole set of Monty games, Amstrad owners will get Monty on the Run, Rocco and Molebelle, while Commodore owners will have Monty on the Run, Pretty Polgrove and There's a Spring.



Gremlin Graphics



Monty Mole Competition

Entry Coupon

Name _____

Address _____

_____ post code _____

Number of differences found

From a Spectrum / Amused / Conservative

Complete details and rules — if you want them — at the end will provide you with a list of the names of the winners of the competition. Please send us your entry by the deadline of 1st November 1985. Please send us your entry by the deadline of 1st November 1985. Please send us your entry by the deadline of 1st November 1985.

How to enter
• Study the two cartoons — there are a number of differences between them. Circle the differences on cartoon B and send the cartoons and coupon in an envelope. Remember to write clearly the number of differences you found on the back of the envelope.

• Post your entry to Monty Mole Competition, Home Computing Weekly, No. 1 Golden Square, London W1K 3AL. Entries close at 5pm on Friday 1 November 1985.

• You may enter as many times as you wish, but each entry must be in an official envelope — not a page — and sealed in a separate envelope.

Important: please follow carefully the guidelines on entering — incomplete envelopes and entries with no names on the back cannot be considered. If you are a winner, the coupon will be used to a bid to meet your price, so clear writing is essential.

The rules

• Entries will not be accepted from persons at Golden Computer, Target Systems Publications and Software Partners & Son. This includes all persons who work in a financial and sales of the company.

• The first 100 to enter receive 100% of the prize.

• The winner's name is final and no correspondence can be entered into.

IT!
CODE

It's time to mark the homework and find the register in this week's exciting episode of Alan Webb's machine code soap opera

Hello again folks, how did you get on with the exercises in the last part? Here are the answers.

1. a) 0000
b) 0001
c) 0011
d) 00
2. a) %1000
b) %10000
3. a) 000
b) 01001
4. %100000000011110

Sorry that part one was rather dry, this time we will actually start writing programs.

Before we can write a program, however, we must discover what the 68000 really comprises of and how they do what they do. First, a little bit, I find it easy to envisage the micro-processor and the rest of the computer as a collection of much boxes. Nearly all of these boxes will accommodate an eight bit number, the smallest being the program counter. Using this analogy can help follow what is going on.

After last month's exercise on binary, you should appreciate the significance of an eight bit number. An eight bit number ranges between %00000000 and %11111111 (or from 0 to 255). This is the basic limitation of the microprocessor and the 68000

micro. You may have already come across this limitation when trying to enter a value greater than 255 into a memory location.

One other temporary area requiring clarification is the concept of memory pages. The diagram of the 68000 register found in comments 10 split up RAM into blocks of 256 bytes or pages. The RAM from address 0 to 255 is called "zero" page (000 to 0FF). The RAM from address 256 to 511 (0000 to 01FF) is called page "one" and so on. Zero page has a particular significance, as we will see later, by offering a faster mode of operation.

So on with the show, what does a 68000 do? Well, it performs a series of simple operations which are held in memory as one, two or three byte codes. This, as you will have guessed, is machine code. The micro keeps track of the address of the operation currently in hand by use of a, 16 bit, program counter.

A work area or scratch pad is useful to allow the temporary storage of data. The 68000 can page "zero" as a "fast in fast out" stack. The current working position in the stack is held in a register called the "Stack Pointer". It's because the use of the stack is greater than in a later part of the series.

I have no intention of building you with great detail about the internal workings of the 68000. The basic operations are covered on their right by registers, the Accumulator, X register, Y register and the Status register. The fast flag plays a vital role in the access and manipulation of data.

The Status register holds seven flags and allows the monitoring of the micro's operation and the control of the program flow. Simple address, subtract and logic operations are possible and these are carried out in the Arithmetic Logic Unit. An appreciation of these basic concepts should be sufficient for the current programming of the 68000. There does remain the feature of interrupts, but these will be covered at a later date.

Unlike the clever design, we stupid humans find it difficult to work in numbers. The process of machine code by direct use of the relevant code values, numbers to you, is both difficult and slow. To aid programming, microprocessors are available for the relevant operations. Load Accumulator, for instance, has the shortened LAX. Here are some other examples.

STA, Store Accumulator
CLC, Clear Carry Flag
RTS, Return from Subroutine

If you study the source codes given in this article you will see the microprocessor in column 4. The full code comprises the instruction followed by an operand. The operand will be

the current colour to red might be:

```
10 LDOO #2 : X = 2
20 SETN 646 : POKE 646,X
30 RTS : RETURN
```

An added set of commands allow the transfer of data between the registers. These operate in only one mode (simplex mode) and have no operands. The commands are:

TAX...Transfer Accumulator to X register
TXA...Transfer X register to Accumulator
TAY...Transfer Accumulator to Y register
TYA...Transfer Y register to Accumulator

These operations actually copy data from one register to the other, leaving the contents of the source and destination registers the same.

Generally the accumulator is used for most operations since



it is the most versatile. The X and Y registers are less clever and are generally used as

containers and for temporary storage.

Now, here I'll discuss the

other addressing modes and we'll wade further into the syntax. For those of you with the time, try these exercises:

- 1) Write a BASIC analogue to the following routine:
LDA #50
LDR #4
TAY
STY 50000
STA 50001
RTS #46
RTS

(Note: BASIC uses only decimal so you'll have to convert the hexadecimal values.)

- 2) Write a BASIC analogue and convert it to source code to change the screen colour and put a blue X in the top right corner of the screen.

Programs are always supplied on cassette and are accompanied by full details of the program variables, how the program works and any hints on conversion you can offer. Please type these details double spaced. Listings are helpful but not essential. What is vital is that the programs should be completely error free, so please double check.

Always use a coupon firmly fixed to the back of your envelope, and fully complete and enclose the cassette label card.

We are particularly interested in programs with less than 100 actual lines of BASIC. All submissions are acknowledged.

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FIRMWARE



Jon Revis casts his eye over the Acorn Graphics Extension ROM and reckons it's a top drawer graphic aid for the BBC and Electron

Acorn Graphics Extension ROM

Many months ago when the BBC was still on behind the curtains, Acorn, promised that one day the audience desktop would be freed from the old prisons of drawing everything using triangles and lines. Well, brothers that day has come. Acorn have just released the official Graphics Extension ROM (ROM).

The 128 KROM fits into any spare sideways ROM socket in the BBC or microslot slot on the Electron. Depending upon the pricing of the socket in which the ROM is placed it will be either above or below when the machine is switched on. I would suggest that the user uses the ROM so that it defaults to its reserve status upon power up, so when Ctrl/Shift is pressed I make this suggestion because the ROM draws three pages of memory when activated.

This would obviously interfere with any commercial software that you wished to run. It also means that should you have a clear attribute filed and wish to write a program which uses Mode 2 then you are left with a whole 32 of memory into which you must squeeze your program. These memory limitations will not worry users of second processors and even Arco 800 memory expansion boards, as the ROM works perfectly with both of these devices.

The graphics extension ROM is activated using the command "GEX", following which the user is prompted to press the Break key. The ROM can be disabled again using the command "NOGEX" or pressing Ctrl/Break.

One routine which I shall

mention here performs a flood fill function. However this routine alone requires two of the three pages of memory claimed by the ROM. Should you decide that you won't be using the flood fill facility in your programs then these two pages can be reclaimed using the command "NOFLOOD".

The ROM's facilities can be divided into two distinct sections, firstly there are the general purpose routines, circles, squares etc. The rest of the ROM is dedicated to the definition and animation of sprites.

The majority of the new facilities are accessed via the PLOT statement. The manual lists all of the new PLOT numbers, these provide a whole variety of new graphics routines for the BBC. These include rectangles, parallelograms, circles and ellipses, all of which can be filled instantly.

The example cassette which accompanies the ROM provides programs which utilize each of the new PLOT statements. One little point which I found irritating was the fact that all of the new PLOT numbers were given in hexadecimal format when used in the demo programs. Why not stick to good old decimal as they did in the user guide.

The PLOT statement is not the only statement which has been extended by the ROM. The VIDOUT and GCOL statements can now be combined to produce a multitude of textured patterns. These are combinations of several colours which are laid out in different ways to give the textured effect. As the definition of these patterns may prove a little complicated for many users a pattern editor program is also provided on the demo cassette.

The flood fill routine is used to fill irregular shapes, it is impressively fast in two main forms: one to fill an area of background colour until encountering any foreground colour, and to fill over any colour until encountering the present foreground colour.

One very tricky little routine will move or copy an area of screen memory to a new location on the screen. If the move option is to use the area of memory being moved is replaced by the current background colour. In this way the user can animate very large objects with the minimum of loss. The Acorn example program shows a large cloud dragged across the screen.

The ROM also contains numerous commands which allow the creation, editing, and plotting of sprites. Having reserved some more of your rapidly disappearing memory for storing the sprite definitions you can issue the "SEDEF" command and create multi coloured sprites of different sizes using the in-built editor. These sprite definitions can be saved in direct mode ready to be used in your own programs. To give a sprite a shape that is selected using either the "SCRSHADE" command or you another variant of the VIDOUT statement. Finally the sprite is plotted on the screen via the PLOT statement. The standard of animation achieved using these techniques is far superior to that produced by Basic alone.

The graphics extension ROM is a very compact piece of firmware which greatly enhances the already excellent graphic capabilities of the BBC. The only snag with this type of ROM is the fact that any programs written using the GCOL commands can only be run on a machine which is also fitted with the GCOL.

JS

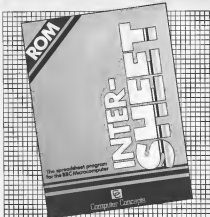
Price: £29.90

Publisher: Acornsoft Ltd

A address: Cambridgeshire Technology, 645 Newmarket Road, Cambridge, CB5 8PD



FIRMWARE



Spreadsheets are programs which can turn your micro into a powerful number crunching machine. Inter-Sheet gets a thorough going over in this review by mathematician Bill Riding and Richard Seeley

There is no lack of spreadsheet programs for the BBC machine. They claim to have all the facilities that a home user can want but some have made a name for themselves, in the same way that Wordwise has in the word processor market.

The obvious question to ask themselves is "Does InterSheet really have the facilities or is this, yet another, half-witted product with someone's brain-loom?" If these packages is anything to go by then there is a great deal to be said for the product. Your, two tons, three box contains not just one chip but two and also two manuals. Added to this tale lot is a folded reference card and a sheet of accessories.

The basic concept is that InterSheet is the first of a wide range of truly integrated utility

programs which can share files as a single and easy way. The "second" ROM contains the routines needed to allow this integration too, as this is the first of the series to be released, there is little chance to try the "ROM link" facilities and we will therefore keep this review to the actual sheet facilities and not try to include the linking routines, which will be better covered in a later review of further products.

The first difference between this sheet and a number of its competitors is sheet size. You can have up to 64 columns of 255 rows, a total of over 16,000 boxes, often called cells by other programs. You cannot see all of these at one time, of course, you would need glasses for that. You do have the chance to choose the degree of

eye strain to suffer, with 40, 80 and 100 character screens. This means that at best you see 14 columns of 20 rows, quite a large window.

One little magic is that the headings at the top of the columns are all right justified which can throw the eye a little. This is not such a problem in the higher resolution modes however as the columns are only selected or highlighted by appearing in reverse video.

The default setting for each box is 7 characters but the columns can be expanded from 3 to 30 characters incrementally, a real time and a major step forward in our view. What is more, you don't need to see the column title before you enter the data — by using the slash (/) or the command you can alter the size of a box during the entry of data. Further sheet commands allow you to change the number format, justify, freeze and locking of boxes on an individual box, row, column or row freeze.

One of these commands requires a fuller explanation. The copy command is accessed by the use of slash C. You can

steps out a line to him, line to arm, and arm to arm line. What is even better is that the formless have their refinement changed automatically so that they relate to the new location directly without any manual input from you. This is without any doubt the most capable replication facility that we have ever come across and allows you to do the really boring bits very quickly indeed.

The function keys are also used a great deal in good effect. You can zoom in, delete a picture or clip, toggle the editing mode, toggle auto/manual autoexposure, and toggle the camera auto-stop with a single key stroke. The edit mode deserves a word or two. If you have entered a complete formula to a long label and then discover a slight mistake it is a real laborer saving the whole of the tape again. With this function all is cut lost and you can recover your data in no time at all.

As you will have guessed by now, all the computer-aided functions that let you do things to names are available in this sheet. These are even spread, smart, functions such as mailmerge, which can send letters or forms to many addressees. The LOOKUP command is almost unique and very useful - it allows you to find a piece from an ordered list that matches the number in another reference. There is also a special form of the IFTRUE/FALSE construction which allows you to abbreviate a lot of IF conditions, in result, but rarely.

If it sounds good on the
don't give up just yet, there is
more to come.

All ships have a LOAD and SAVE facility and the one is to recognize, but there are two more features which we have been looking for in other products at sea. This sheet has commands which allow the EXPORT and IMPORT of a sheet as a text or a sheet.

you report the results on the contents of a specified area, you can then IMPORT those results into another worksheet later. The means that both formulas and data can be stored separately so that they can be re-embedded later as used in new sheets in a different way. You can move one part of a sheet and then IMPORT another without disturbing the parts already displaying. This has to be an exciting innovation and a part of the *WEEK* web course.

When you add onto the marvelous facility the **PRINT**, **WILDCARD** and **LIST** FOR **MILLAS** functions you have a very powerful set of storage commands but there are more. You can **SPREAD** a sheet — giving you output which can then be used as a word processor such as **Wordware** or **Rev**. The output of this command is ASCII without any control codes which is ideal for further manipulation in the **wordproc**.

Finally, there are the B104 and command-line papers which allow you to have 16 sheets in memory at one time and to have fully merged packages — but hand on we end we'd cover all that in a later article.

If you are running a business, whether to keep the score at cricket, balance the family budget or to make enough money on the stock exchange to buy another Mini, machine, then Inter-Sheet is for you and there is no better product on the market than this.

1000 1000 1000

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Scot Press Ltd, publishers of Popular Computing Weekly, is pleased to announce that it has purchased Home Computing Weekly from Argus Specialist Publications Ltd.

From next week's issue HCW's most popular features will be incorporated into Popular Computing Weekly.

"We are very pleased to have reached this agreement with Argus. Popular Computing Weekly is now secure in its position as the only weekly magazine serving the consumer computer market", says Duncan Scot, Managing Director of Scot Press Ltd.

Popular Computing Weekly was launched in April 1982 and has maintained its position as market leader since that date. Personal Computer News (by VNU) and Home Computing Weekly (by Argus) were launched in March 1983. Personal Computing News was closed last Spring. Popular Computing Weekly is now left with a solus position in this market.

The Editor and staff of HCW would like to thank their readers, advertisers and the retail news trade for their support and trust this will continue under the magazine's new ownership.



VENTURES

I didn't watch much of the recent Robin Of Sherwood television series, but from what I did see it was pretty good, far removed from the dull films version. The emphasis had moved from "looking through the glass with his merry men" and jolly host (youngster) master, who's addressed a word of this — my mate told me) to a faithful reconstruction with strong elements of magic and the supernatural. It did very well on the ratings too.

Adventure International bought the rights, and handed the idea to Mike Woodroffe, Brian Howarth and Dennis Lynch, who produced the top-selling and very German game. They obviously expect a similar hit with Robin based on its good credentials. I'm not to say it does not deserve to be.

But, before the criticism, the ancient link in the real-life century, a hermit god called Hiram summoned the Hooded Men to the forest. The men — Robin, played by you — must lead the resistance against the tyrant, particularly Robert de Bannock, the evil King's Sheriff of Nottingham. In this portable game you lack a solid die or six combinations of Rhinoceros and return them to their rightful home.

You start in a dungeon, which made me feel queasy at first. As usual, the text is born described as "informative". "You are in a dark dungeon. You see Mush, Wolf Snail, Lizard, Gummy, Princess." It was no better in Games of course, but with the game there were the most numerous graphics to look at. Sadly, in Robin they are not as impressive, with the exception of a wonderful chess in an immense, and most often chessmen in the game. Like Final York and Lethal, are not depicted in The Hooded Men's acceptable — in a book people are those magnificent — but in this based on a TV programme the artists' team could be used. The locations are very moody though, and colour is rapidly used.

I have several major niggles. Vocabulary is as good as zero, and the responses are rather cardboard-like, although at least you can talk to people. Sometimes the game is too fast — at the start, you need to see YOURSELF which is a bit obvious, and in the other colours,

ROBIN OF SHERWOOD

The TV Series And Game of Adventure

Published by ADVENTURE INTERNATIONAL LTD. 100, NEWCASTLE ROAD, NEWCASTLE, ENGLAND

An Adventure by
Mike Woodroffe and
Brian Howarth

SPECTRUM 48K
WITH GRAPHICS
Cassette £8.95

**Look out for the arrows at our
dungeon dweller Peter Sweeney meets
Robin Hood and still finds room for a
few reader's problems**

the program (that's GIVE in the name as DRUP GET ALL is not understood, although it was in German). If you type a command the response doesn't understand, instead of giving a realistic response it is often totally ignored, which isn't very helpful in some locations there are two entrance doors, you being returned to GO LEFT or RIGHT DOOR. Why not use an arrow? And so on.

Sherwood Forest is vaguely misleading in that it has no night and all looks the same. Many features of the game will probably be the same conventional adventures, who use characters like the Top Gun, and I don't think they will like the large, impressive text. It takes up a lot of the game and is too to get lost in.

Another really annoying feature you have to stop the tape at one point when looking to read some text credits. This means some weird, avoiding a load instead of making some tea. And the instructions are still useless, they call it a Scott

Adams game and tell you to try HELP even though it is not understood.

My main criticism is that the game has no atmosphere. Whereas Games might be the exception, the Robin Hood game, the text is good and it has very many or having. The best text and realistic vocabulary put an entire chapter on any interesting topic or complex problems for the game needs such features.

The commercial adventure will not find enough credit appeal in the game, and adventure buffs will find it too limited. It won't appeal much to Robin Of Sherwood fans either, as I found them more as Michael Peard (which is the disappointment of Garry, an old friend, although a "full colour game" offer is promised). Because it's a TV game I expect it will go into the Top Twenty, even though better adventures are available for less than this, rather inferior, price. It's not a particularly bad game, but it's not very good either.

My rating would be lower but for the graphics. So, unless you want pretty pictures, not recommended.

A quick mention for a product called Map Maker I was sent recently. It is basically a white plastic sheet with letters printed on it. Using a special pen you can map out an adventure, then when you have finished, wipe it all off with a damp cloth and use it. I can see two disadvantages: it's no good if you play more than one game at a time, and it only has 143 letters, so large games like *Red Moon* cannot be mapped easily. It seems rather pricey for what it is, but if you like the sound of it, it works fairly well.

Robin of Sherwood

Prices: £5.95 graphics
£7.95 text only

Publisher: Adventure International

Address: 85 New Summer Street, Birmingham B19 1TE

Machine: C64/4, Amstrad, Spectrum, BBC



Map Maker

Prices: £4.95

Publisher: Maps

Address: 108 Robert Street, Ypsilanti, Mid Glamorgan

Machine: All



Helpine

First up came hints for those lucky people who own *Shamus*. There seems to be some difficulty in obtaining it at the moment, but I expect the *Firebird* version will hit the shops soon. One will capture Elanor and Greywolf quite quickly, so use them first. You'll need help from Chama, Braxor, Elmore and Quesada. As *Marlowe* guide that but to a *Shamus* in the Island with the tower in the Great Woods is the Book of Zaramin. Give this to Chama, and ask her to read



a until she repeats herself. These are the magic words for Greywolf — write them down. Take the book to him and he'll be able to cast spells. If he's been captured, go to him where he is imprisoned, usually Elmore's house in the Bay of Tarsus. Now you can have a good, long fight! *Marlowe* can fight of course, Elanor can use his sword, and Braxor will fight if you ask him to. I won't tell you all Greywolf's spells, but CAST SHALANOTH AT (whoever) will send the person on fire to the Island in the Great Woods. Could be useful.

Regular readers will know I am a great *Voltaire* fan, although I have been changed for ages. *Landover* *Firebird* still points out to me what I have been overlooking. GET

MIRROR in the corridor out, left room 17. Another puzzle chest! The bubbles are a real bearing — but the squashing is needed later. To go somewhere in the past, type SCHLOSS-Moonwalk, Calla. *Shamus* from Braxor will be unable to join the get a drink earlier in the game. You need to PASH NECKLACE at the puzzle-breakers then take the money to the hotel, PAY BILL, and buy her out with the change. The sequel to *WIT*, *Three Days in Carphoria*, is due out at the end of September. Review soon!

Next Vincent from *Walters* in *Yorkshire* meant get the map in *Walters*'s *Walters* of *Red* *Walters* together John Wilson of *Kuchel* has the answer. Go to the store and buy the one, then go south three times. Check

the log, take it to the cartographer and he will give you some coins and the map.

Marla Hills writes from *Shelton* about *Crash*. She wants to meet an employee. Try TURN OFF VALVE of hoodie, CUT PIPE with hammers, when the plastic pipe isn't present, JOIN PLASTIC PIPE with tape then INSERT PIPE into the hole in the plate in the hardware department. George will want a reward (What is that? A bomb making kit?) Ed.

Four Smith from *Shelton* wants *Red* *Electric* and *Donner* *Crash* in *Splinter*. You need to stop the bus by SHOOTING your WEB at it, then GO PAN. Head down through the hole and you'll find them!

Humming along with Hypersports

There is a constant up for Hypersports on the C16 from Sean O'Keefe of Derby, N Ireland.

"When the first race begins the tape recoils and doesn't start it again. The tape continues to scroll but when it comes to the end, it starts again only this time some of the channels have changed and you get a "bump" of the original tape."



"You carry what you want..."

Help!

I have a graphics driver and as I am starting to program in machine code, I was told that I should be able to give the graphics machine code itself. It seems to be a device called a "graphics card" or "graphics controller". It seems to be a device which is used to control the graphics of a computer. I am not sure if this is the right way to go or not. I am not sure if this is the right way to go or not.

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There is the reader I want to read about graphics.

CALL PET DEPT "TODAY IS A DAY" #17
FOR ME
LID A (HJ)
INC HL
PUSH SE
CP #17
SETZ
PUSH HL
IN PET

Qualcomm International, London SW9

Readers HI-score table

Name	Game	Machine	Score
Richard Burton	Demolition	Amstrad	424,776
	Revised In Time	Amstrad	128 Crystals
	Endless War	Amstrad	21 coins
Simon Wilson	Hypersports	Spectrum	265,982
Mark Cole	Blogger	C16	61,758
	Tower of Babel	C16	218,520
	Strangle	C16	144,480
Tobias Polverly	Big Max	C64	134,787
	Machinists	C64	96,458
	Acorn Biler	C64	242,680
Andrew Clarke	Read Over Moscow	C64	244,680
	Beach Head	C64	218,480
	Brave Lee	C64	1,025,421

Eggstordinary

In NME again your dear old Clive the egg explorer reporting from my another last night session and I am pleased to announce that I've done it - well almost. After several hours of hard work I reached level 215 with five games, 1 duck, several reflex cups and a couple of coins and 100 on the bank.

Then after completing level 215 I danced to my delight

that I was on level 0 (which is just a little with green and black). When I was on level 0 I was on level 0 (which is just a little with green and black). When I was on level 0 I was on level 0 (which is just a little with green and black).

Keep it, Mervyn, on the

OFFA LAURIE Discount tapes!



Bargain Tapes

If you can buy any number of tapes from your friendly market discount stall, not just those often shown here, how many would make the best buy?

READERSPAGE



Shadow of the UNICORN

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